

IN THE CLAIMS:

Claims 1-17 Canceled

18. (Currently amended) A method for preparing a the metallic plate and the resin structure laminated with a photocatalyst supporting film according to 1, laminate which exhibits photocatalytic activity capable of decomposing triolein at a rate of 5 $\mu\text{g}/\text{cm}^2/\text{day}$ or more when irradiating UV rays in UV-A range at a strength of 3 mW/cm^2 under an atmospheric temperature of 25 °C and relative humidity of 70%, wherein the laminate comprises a metallic plate or a resin structure characterized in that the plate and the structure are obtained by laminating a photocatalyst-supporting film onto the surface of a metallic plate or a resin substrate by heat-pressing characterized in that wherein the method comprises the steps

- (a) coating a polymer resin film with a coating solution comprising an adhesive and a silane coupler as a hardener and then drying to form an adhesive layer and
- (b) subsequently coating the adhesive layer with a coating solution comprising a photocatalyst and then drying the coating solution to prepare a photocatalyst-supporting film which carries the photocatalyst layer on the polymer resin film via the adhesive layer, and
- (c) then laminating the photocatalyst-supporting film onto the surface of a metallic plate or a resin substrate by applying heating and pressing.

Claims 19-20 (Canceled)

21. (withdrawn) A coating agent for adhering a photocatalyst for preparing a photocatalyst layer onto a polymer resin film via an adhesive layer characterized in that the coating agent is prepared by adding a silane coupler in an amount of 0.1-5% by weight relative to the weight of a coating solution for the adhesive layer as a hardening agent into the coating solution for an adhesive layer containing 2-20% by weight of silicon denatured resin, which contains either polysiloxane in an amount of 10-50% by weight or colloidal silica in an amount of 5-30% by weight.

22. (withdrawn) A coating agent for adhering a photocatalyst for preparing a photocatalyst layer onto a polymer resin film via an adhesive layer characterized in that the coating agent is prepared by adding a silane coupler in an amount of 0.1-5% by weight relative to the weight of a coating solution for an adhesive layer as a hardener into the coating solution for an adhesive layer containing either monoalkyltrimethoxysilane or its hydrolyzed product, polysiloxane, in an amount of 1-10% by weight and silica sol in an amount of 0.1-5%.

23. (New) A method for preparing a metallic plate and a resin structure with a photocatalyst-supporting film, which exhibits photocatalytic activity capable of decomposing triolein at a rate of 5 μ g/cm²/day or more when irradiating UV rays in UV-A range at a strength of 3 mW/cm² under an atmospheric temperature of 25 C and relative humidity of 70%, characterized in that a photocatalyst-supporting film is laminated onto the surface of a metallic plate or a resin substrate by heat-pressing.

24. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 23, characterized in that the photocatalyst-supporting film is made of polymer resin film in which a photocatalyst layer is carried on the film via an adhesive layer.

25. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 24, characterized in that the polymer resin film is a film on which 2 or more resin films are laminated.

26. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 24, characterized in that the polymer resin film is made of a resin selected from the group consisting of polycarbonate resins, copolymers of at least 2 polymethylmethacrylate resins; copolymers of at least two polyacrylate resins, copolymers of polymethylmethacrylate/polyacrylate resins, poly(vinyl chloride) resins and cellophane resins.

27. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 24, characterized in that the thickness of the polymer resin film is in a range of from 5 to 200 μm .

28. (New) A process for preparing a laminate according to Claim 24, characterized in that the adhesive layer is formed by coating a coating solution for an adhesive layer containing a silane coupler as a hardener.

29. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 24, characterized in that a coating solution for an adhesive layer prepared by adding a silane coupler in an amount of 0.1-5% by weight relative to the weight of the coating solution as a hardener, wherein the a coating solution comprises (1) or (2) wherein (1) is a silicon denaturated resin in an amount of 2-20% by weight which contains polysiloxane in an amount of 10-50% by weight and wherein (2) is a silicon denaturated resin in an amount of 2-20% by weight and which contains colloidal silica in an amount of 5-30% by weight is used for the coating solution for said adhesive layer.

30. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 28, characterized in that a coating solution prepared by adding a silane coupler as a hardener in an amount of 0.1-5% by weight relative to the weight of the coating solution into a solution containing either monoalkyltrimethoxysilanes or its hydrolyzed product in an amount of 1-10% by weight and silica sol in an amount of 0.1-5% by weight is used as the coating solution for an adhesive layer.

31. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 24, characterized in that the thickness of the adhesive layer is in a range of from 0.5 to 5 μm .

32. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 24, characterized in that the photocatalyst layer contains a metal oxide sol in an amount of 1-10% by weight as solid component and titanium dioxide in an amount of 1-10% by weight as solid component.

33. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 24, characterized in that the photocatalyst layer contains silica sol in an amount of 1-10% by weight, either of monoalkyltrimethoxysilane or its hydrolyzed product in an amount of 1-10% by weight and titanium dioxide in an amount of 1-10% by weight.

34. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to 32, characterized in that the thickness of the photocatalyst layer is in a range of from 0.1 to 5 μm .

35. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 23, characterized in that the metallic plate is a metallic plate selected from the group consisting of iron plate, steel plate, aluminium plate and aluminium alloy plate.

36. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 23, characterized in that the metallic plate is any of resin-coated metallic plate, paint-coated metallic plate and enamelled metallic plate, which are coated in either single or multiple layers with at least one of the resins selected from the group consisting of poly(vinyl chloride) resins, polyethyleneterephthalate resins and polymethylmethacrylate resins.

37. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 23, characterized in that the shape of the metallic plate is selected from the group consisting of plate-form, tubular and corrugated-form.

38. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 23, characterized in that the resin substrate is made of a resin selected from the group consisting of poly(vinyl chloride) resins, polyethyleneterephthalate resins, polymethylmethacrylate resins, polycarbonate resins, polyethylene resins, polypropylene resins, shock-resistant

denatured polystyrene resins, and acryl-butadiene-styrene copolymers.

39. (New) A method for preparing the metallic plate and the resin structure laminated with a photocatalyst-supporting film according to Claim 23, characterized in that the shape of the resin substrate is plate-form, sheet-like, woven fabric-like, nonwoven fabric-like, resin-containing reinforced fabric-like or tubular.